3.0 MODIFIED RECORD FIRE RANGE (MRF) <VER>(REV 2.0 – 30 JUN 2012)</VER>

3.1. GENERAL REQUIREMENTS:

A. The controlling documents for this range project are the current approved DD1391 Military Construction Project Data and the CEHNC 1110-1-23 Modified Record Fire Range (MRF) Design Volume. The Design Volume can be found at www.hnd.usace.army.mil/rdg/intertemplate.aspx under the title (MRF) Modified Record Fire Range. The information in the Design Volume and this document is based on Training Circular (TC) 25-8 Training Ranges dated 2010, Facility Category Code (FCC) 17806 Facility Description

B. The designer/constructor of this range is strongly urged to coordinate closely with the customer's live-fire range training subject matter experts so that he can understand the training objectives of this type of facility. Even though the engineering and construction techniques in this type of range are not extremely complex, the objectives of the project are unique to live-fire training. The designer/constructor is required to have a live-fire range training subject matter expert on his team to ensure that all military training issues are understood.

C. The designer/constructor of this range must be aware of and comply with the Construction Compliance Inspection (CCI) and Target Interface Inspection (TII) appendix of the Design Volume.

D. Unexploded Ordnance (UXO): The potential for UXO always exists on military property and is a potentially serious problem on all range projects. Special restrictions on construction operations are specified in Paragraph 6 of this section

3.1.1. FACILITY DESCRIPTION

The Modified Record Fire range, FCC 17806, is used to train and test individual soldiers on the skills necessary to identify, engage, and defeat stationary infantry targets for day/night qualification requirements with the M16 and M4 series rifles.

3.1.2. FACILITY RELATIONSHIPS

A separate contractor will enter the project after construction is complete to install targetry and the targetry control system. They will be installing this equipment using the interface points established during this design-build contract. Therefore, deviation from standards depicted in the Design Volume is prohibited.

3.1.3. ACCESSIBILITY REQUIREMENTS

Training Ranges are restricted by occupancy classification to use *only* by able-bodied military personnel during the expected useful life of the building or facility and need not be accessible.

3.1.4. BUILDING AREAS

Refer to the Project Development Matrix for building sizes and requirements

3.1.5. ADAPT BUILD MODEL

Standard building footprints are contained in the Design Volume, no adapt-build models are available.

3.1.6. FACILITY SPECIFIC SUBMITTAL REQUIREMENTS

In addition to submittals specified in other parts of this RFP, submit the following:

A. DESIGN SUBMITTALS:

1) Line of Site profiles from 1) each firing position to their associated targets; 2) each firing position to the Lane Markers and Range Limit markers.

2) Emplacement details – both Civil and Electrical

SAMPLE

3) Complete riser diagram indicating routing of data cables

4) Voltage drop calculations

B. CONSTRUCTION SUBMITTALS: Complete riser diagram indicating as-built routing of data cables

3.2. FUNCTIONAL AND OPERATIONAL REQUIREMENTS

3.2.1. FUNCTIONAL SPACES

The MRF is comprised of the Range Operations and Control Area (ROCA) and the down range area.

A. RANGE OPERATIONS AND CONTROL AREA – SMALL ARMS: The Range Operations and Control Area (ROCA) is the center for overall control and operation of the range, training exercises, administrative services, and support facilities. From the range operations and control area, downrange target and simulation equipment are operated and activities are monitored for scoring and performance data review. The data is collected and distributed to the participants for an after action review. The location of the buildings is critical for the command and control during training operations on the range; therefore, coordination with the installation user is mandatory for the placement of the ROCA buildings on the construction site. The ROCA is comprised of multiple vertical construction components, which are defined in the Project Specific Matrix. The command & control system and targetry equipment will be Government Furnished and Government Installed (GFGI).

B. DOWN RANGE AREA: The down range area consists of the firing positions, targetry lanes, and support equipment that provide the user the capability to meet current army training standards. In conjunction with this, each site-specific project may include necessary site amenities, such as site improvements, vehicle parking area, access roads, service trails, and exterior utilities. Paragraph 6 of this section or the RFP Appendices establishes which have been authorized for this range project. The command & control system and targetry equipment will be Government Furnished and Government Installed (GFGI).

1) **Line of Site (LOS)** validation must be accomplished during design between each firing position and all of its associated target locations, lane markers and limit markers. Document the LOS validation in the design submittal(s).

2) Signage as described in the Design Volume is required for this range. In addition, refer to installation specific requirements in Paragraph 6 of this section or Appendix H.

3) **Surface Danger Zone (SDZ)**. An SDZ for the layout depicted in Appendix J has been validated by the Installation safety office. Any changes made to the layout during design development that may affect the validated SDZ shall be approved by the Installation safety office.

SAMPLE

3.3. SITE FUNCTIONAL REQUIREMENTS

The range's functional layout and adjacency requirements are as indicated on drawings contained in the Design Volume and, if applicable, as depicted in Appendix J. The extent to which the drawings represent required or preferred layouts and the allowable latitude for changes to them is as noted on the drawings. The layout of the Range Operations and Control Area is dependent on the user's training objectives and the facilities' terrain.

3.4. SITE AND LANDSCAPE REQUIREMENTS

Site design requirements are identified in the Design Volume. Special attention must be given to the Line-of-Sight (LOS) validation, the Surface Danger Zone (SDZ) verification and site drainage issues. Provide the LOS validation and SDZ verification in the design package.

3.5. ARCHITECTURAL REQUIREMENTS

A. Architectural design requirements are identified in the Design Volume.

B. Coordinate with the installation's Public Works office for the exterior and interior color finishes if not specified in the RFP Appendices.

3.5.1. FINISHES AND INTERIOR SPECIALTIES:

A. FINISHES: Coordinate with the installation's Public Works office for the exterior and interior color finishes if not specified in the RFP Appendices. See the Design Volume.

B. INTERIOR SPECIALTIES:

1) Signage as described in the Design Volume is required for this range. In addition, refer to installation specific requirements in Paragraph 6 of this section or Appendix H.

2) Fire Extinguishers, Cabinets & Mounting Brackets: Furnish a list of installed fire extinguisher cabinets and mounting brackets (including location, size and type) to the Contracting Office Representative. Provide a list of all required portable fire extinguishers, with descriptions (location, size, type, etc.) and total number per type. See also Section 01 33 16, Attachment D, "SAMPLE FIRE PROTECTION AND LIFE SAFETY CODE REVIEW", paragraph 1.14.

3.6. SEE PARAGRAPH 5.6 STRUCTURAL REQUIREMENTS – NOT USED

3.7. SEE PARAGRAPH 6.7 THERMAL PERFORMANCE – NOT USED

3.8. PLUMBING REQUIREMENTS

Water and Sewer service to a range project is a rare occurrence, the remoteness of most ranges from the Installation's existing infrastructure makes their use impractical. However, if water or sewer hookup is specified in the Project Definition Matrix, refer to Paragraph 6 and Appendix C for utility connection information.

3.9. COMMUNICATIONS AND SECURITY SYSTEMS

A. If telephone service is included in the Scope of this project, coordination with the local NEC is required to ensure Installation compatibility and acceptance.

B. Refer to Paragraph 6 of this section and Appendix C for utility connection information.

C. There shall be a clear delineation between the down range communications infrastructure and the facility telecommunication infrastructure. Each communication system enters the ROC Tower, but shall be terminated and housed in separate enclosures and backboards. The downrange communications infrastructure shall be installed in accordance with the Design Volume and the facility telecommunications infrastructure shall be installed in accordance with I3A.

3.10. ELECTRICAL REQUIREMENTS

A. GENERAL: Power and lighting shall be provided to the facilities and downrange area as specified below; all IEEE Standards (including Recommended Practice) where the scope is applicable to this design effort; all UL Standards where the UL scope is applicable to this design effort and where itemized in the combined interdisciplinary areas cited.

1) Provide the downrange power and data communications systems in accordance with CEHNC 1110-1-23 Modified Record Fire Range (MRF) Design Volume.

2) Perform a short circuit study as an integral part of selecting and sizing electrical distribution components (all equipment shall be fully rated; that is, do not use series-combination rated equipment).

3) For Ranges being provided power through Government owned utility systems, perform a coordination study to ensure that protective device settings are appropriate for the expected range of conditions (depending on the design and construction schedule, it is acceptable to design adequate protective devices with adjustable features, followed by a coordination study required during construction to specify the correct settings.)

4) Refer to Paragraph 6 of this Section and Appendix C for utility connection information.

5) The Design Volume contains design submittal and construction submittal requirements that are in addition to those identified by Section 01 33 16 Design After Award and Section 01 78 02.00 10 Closeout Submittals. Project submittal register shall specifically include all submittals required by the Design Volume

SAMPLE

B. POWER: Circuit breakers, disconnect switches, and other devices that meet the OSHA definition of energy-isolating device must be lockable.

1) Allowable Facility Voltage Drop: For transformer located exterior to the facility, limit the combined voltage drop for service conductors, feeders, and branch circuits to 5 percent. Individual voltage drop on branch circuits should not exceed 3 percent.

2) Allowable Downrange Voltage Drop: Voltage available to each target shall be no less than 95 percent of the target's rated operating voltage.

3) Medium voltage (MV) surge arrestors shall be provided on all riser poles, within each MV sectionalizer enclosures, within each pad mounted transformer, and wherever the medium voltage rises above grade.

C. LIGHTING: Night Operations Lighting, where separate switching standard and red lighting is required, identify each switch with a label and provide the standard lighting switch with a locking tab that will permit the standard lighting to be locked "off" during night operations.

3.11. HEATING VENTILATING AND AIR CONDITIONING (HVAC) REQUIREMENTS

Heating, Ventilating and Air Conditioning (HVAC) requirements are identified in the Design Volume. HVAC requirements are addressed on a building-by-building basis.

3.12. ENERGY CONSERVATION REQUIREMENTS

Refer to paragraph 5.9 for energy conservation requirements.

3.13. FIRE PROTECTION REQUIREMENTS

Fire detection and alarm systems are seldom used in Army training ranges due to the low volume of personnel in any facility at any given time. If the project dictates a fire detection and/or a response system, coordinate directly with the Installation's Fire Department for specific requirements. Refer to Paragraph 6 of this section for installation requirements.

3.14. SEE PARAGRAPHS 5.12 AND 6.14 SUSTAINABLE DESIGN – NOT USED

3.15. SEE PARAGRAPH 6.15 ENVIRONMENTAL – NOT USED

3.16. SEE PARAGRAPH 6.16 PERMITS – NOT USED

3.17. SEE PARAGRAPH 6.17 DEMOLITION – NOT USED`

3.18. SEE PARAGRAPH 6.18 ADDITIONAL FACILITIES – NOT USED

3.19. EQUIPMENT AND FURNITURE REQUIREMENTS

3.19.1. FURNISHINGS

Furnishings, other than installed equipment, are Government-furnished and Government-installed (GFGI) unless otherwise specified in this document.

3.19.2. EQUIPMENT

Targetry and Targetry Control Equipment GFGI unless otherwise specified in this document.

3.20. FACILITY SPECIFIC REFERENCES

A. CEHNC 1110-1-23 Modified Record Fire Range (MRF) Design Volume - www.hnd.usace.army.mil/rdg/intertemplate.aspx under the title (MRF) Modified Record Fire Range

SAMPLE

B. Training Circular (TC) 25-8 Training Ranges dated 2010, Facility Category Code (FCC) 17806 Facility Description

SAMPLE

MODIFIED RECORD FIRE RANGE (MRF)
PROJECT DEFINITION MATRIX

<*VER*>(REV 1.0 – 31 JAN 2010)<*/VER*>

An "X" indicates selections

General Project Information	
«MRF_NNE»	No Known Environmental Issues on the Project Site
«MRF_PEI»	Environmental Issues Potentially on Project Site – addressed in more detail in Paragraph 6 and appendices.
«MRF_NNEUXO»	No Known Evidence of Unexploded Ordnance (UXO) on the Project Site
«MRF_UXO»	Unexploded Ordnance (UXO) Potentially on Project Site – UXO awareness instruction required for all site employees
«MRF_ADA»	ADA and ABA Accessibility Guidelines do not apply to this project

Downrange Area	
A. Lanes	
«MRF_LANES_STD»	Standard - 16 Lanes, 20 m wide lanes, 9 Target Emplacements Per lane
«MRF_LANES_NONSTD»	Non-Standard: «MRF_LANES_QTY» Lanes «MRF_LANES_WIDTH» Lane width «MRF_LANES_PERLANE» Target Emplacements each lane
B. Firing Positions	
«MRF_FP_FOX»	Foxholes: «MRF_FP_FOXDROPIN» Drop –in «MRF_FP_FOXWALKIN» Walk-in
«MRF_FP_PRONE»	Prone: «MRF_FP_SPECIFY»
«MRF_FP_NONE»	None

SAMPLE

Downrange Area	
C. Markers	
«MRF_MARKERS_LIMIT»	Limit Markers: Configured for Night Fire? «MRF_MARKERS_NIGHT»
«MRF_MARKERS_INTER»	Intermediate Lane Markers
D. Emplacements	
«MRF_EMP_BELOW»	Below Ground Target Emplacements
«MRF_EMP_ABOVE»	Above Ground Target Emplacements
«MRF_EMP_COMBO»	Combination as Dictated by Terrain
«MRF_EMP_ZERO»	Zero Target Boots: «MRF_EMP_ZEROSETS» Sets
«MRF_EMP_NIGHT»	Night Fire Line: «MRF_EMP_NIGHT_SPECIFY»
E. Emplacement Material	
«MRF_EMPMAT_CON»	Standard Concrete Target Emplacements
«MRF_EMPMAT_OTHER»	Other: «MRF_EMPMAT_SPECIFY»
F. Target Power and Control	
«MRF_POWER_HARD»	Hardwired Electricity and Data
«MRF_	Hardwired Electricity and RF/WiFi Data (provided under separate contract)

SAMPLE

Downrange Area	
POWER_HARDPLUS»	
«MRF_POWER_BTRY»	Battery and RF/WiFi Data (power and data provided under separate contract)
«MRF_POWER_OTHER»	Other: «MRF_POWER_SPECIFY»

Range Operations and Control Area (ROCA)	
«MRF_TOW_QTY»	Range Operation Center (ROC) - Tower Standard size: 289 SQ FT, 17’ x 17’ enclosed
	Height to Control Room Floor: «MRF_TOW_HEIGHT» feet
«MRF_TOW_OBS»	Observation Level
A. Construction	
«MRF_TOW_CONS_DISC»	D/B Contractors Discretion
«MRF_TOW_CONS_CMU»	Concrete Masonry Unit (CMU)
«MRF_TOW_CONS_METAL»	Metal
«MRF_TOW_CONS_OTHER»	Other: «MRF_TOW_CONS_SPECIFY»

SAMPLE

Range Operations and Control Area (ROCA)	
B. Building Infrastructure and Features	
«MRF_TOW_BI_EL»	Electrical Service
«MRF_TOW_BI_DN»	Day and night operations lighting
«MRF_TOW_BI_LP»	Lightning protection
«MRF_TOW_BI_PA»	Public Address (PA) System
«MRF_TOW_BI_C2»	Hardwired Command & Control Data Service-Downrange Data
«MRF_TOW_BI_TEL»	Telephone service: <<MRF_TOW_BI_COPFIB>>
«MRF_TOW_BI_FE»	Fire Extinguisher Cabinets or Brackets
«MRF_TOW_BI_FD»	Fire Detection & Alarm (connected to Installation Emergency Services)
C. HVAC: Power Source: «MRF_TOW_HVAC_POWER»	
«MRF_TOW_HVAR_BOTH»	Both heat and air conditioning
«MRF_TOW_HVAC_HEAT»	Heat only
«MRF_TOW_HVAC_FREEZE»	Freeze protection only

SAMPLE

Range Operations and Control Area (ROCA)	
«MRF_TOW_HVAC_VENT»	Ventilation only
D. Other	
	«MRF_TOW_OTHER»
«MRF_OSB_QTY»	Operations Storage Building Standard Size: 20 ft x 40 ft – 800 SQ FT
A. Construction	
«MRF_OSB_CONS_DISC»	D/B Contractors Discretion
«MRF_OSB_CONS_CMU»	Concrete Masonry Unit (CMU)
«MRF_OSB_CONS_METAL»	Metal
«MRF_OSB_CONS_OTHER»	Other: «MRF_OSB_CONS_SPECIFY»
B. Building Infrastructure and Features	
«MRF_OSB_BI_EL»	Electrical Service
«MRF_OSB_BI_DN»	Day and night operations lighting
«MRF_OSB_BI_LP»	Lightning protection
«MRF_OSB_BI_INET»	Data Service - Internet

SAMPLE

Range Operations and Control Area (ROCA)	
«MRF_OSB_BI_TEL»	Telephone service: «MRF_OSB_BI_COPFIB»
«MRF_OSB_BI_FE»	Fire Extinguisher Cabinets or Brackets
«MRF_OSB_BI_FD»	Fire Detection & Alarm (connected to Installation Emergency Services)
C. HVAC Power Source: «MRF_OSB_HVAC_POWER»	
«MRF_OSB_HVAC_BOTH»	Both heat and air conditioning
«MRF_OSB_HVAC_HEAT»	Heat only
«MRF_OSB_HVAC_FREEZE»	Freeze protection only
«MRF_OSB_HVAC_VENT»	Ventilation only
D. Other	
	«MRF_OSB_OTHER»
«MRF_GIB_QTY»	General Instruction Building Standard Size: 20 ft x 40 ft – 800 SQ FT
A. Construction	
«MRF_GIB_CONS_DISC»	D/B Contractors Discretion
«MRF_GIB_CONS_C	Concrete Masonry Unit (CMU)

SAMPLE

Range Operations and Control Area (ROCA)	
MU»	
«MRF_GIB_CONS_METAL»	Metal
«MRF_GIB_CONS_OTHER»	Other: <<MRF_GIB_CONS_SPECIFY>>
B. Building Infrastructure and Features	
«MRF_GIB_BI_EL»	Electrical Service
«MRF_GIB_BI_DN»	Day and night operations lighting
«MRF_GIB_BI_LP»	Lightning protection
«MRF_GIB_BI_DC»	Data Connection with ROC
«MRF_GIB_BI_INET»	Data Service - Internet
«MRF_GIB_BI_TEL»	Telephone service: «MRF_GIB_BI_COPFIB»
«MRF_GIB_BI_FE»	Fire Extinguisher Cabinets or Brackets
«MRF_GIB_BI_FD»	Fire Detection & Alarm (connected to Installation Emergency Services)
C. HVAC: Power Source: «MRF_GIB_HVAC_POWER»	
«MRF_GIB_HVAC_BOTH»	Both heat and air conditioning

SAMPLE

Range Operations and Control Area (ROCA)	
«MRF_GIB_HVAC_HEAT»	Heat only
«MRF_GIB_HVAC_FREEZE»	Freeze protection only
«MRF_GIB_HVAC_VENT»	Ventilation only
D. Other	
	«MRF_GIB_OTHER»
«MRF_CM_QTY»	Covered Mess Standard Size: 400 SQ FT, 20’ x 40’
A. Construction	
«MRF_CM_CONS_DISC»	D/B Contractors Discretion
«MRF_CM_CONS_METAL»	Metal
«MRF_CM_CONS_OTHER»	Other: «MRF_CM_CONS_SPECIFY»
B. Building Infrastructure and Features	
«MRF_CM_BI_EL»	Electrical Service
«MRF_CM_BI_DN»	Day and night operations lighting
«MRF_CM_BI_LP»	Lightning protection

SAMPLE

Range Operations and Control Area (ROCA)	
C. Other	
	«MRF_CM_OTHER»
«MRF_ABB_QTY»	Ammunition Breakdown Building Standard Size: 185 SQ FT, 10’ x 12’ enclosed
A. Construction	
«MRF_ABB_CONS_DISC»	D/B Contractors Discretion
«MRF_ABB_CONS_CMU»	Concrete Masonry Unit (CMU)
«MRF_ABB_CONS_METAL»	Metal
«MRF_ABB_CONS_OTHER»	Other: «MRF_ABB_CONS_SPECIFY»
B. Building Infrastructure and Features	
«MRF_ABB_BI_EL»	Electrical Service
«MRF_ABB_BI_DN»	Day and night operations lighting
«MRF_ABB_BI_LP»	Lightning protection
«MRF_ABB_BI_FE»	Fire Extinguisher Cabinets or Brackets
«MRF_ABB_BI_FD»	Fire Detection & Alarm (connected to Installation Emergency Services)
C. HVAC:	

SAMPLE

Range Operations and Control Area (ROCA)	
Power Source: «MRF_ABB_HVAC_POWER»	
«MRF_ABB_HVAC_BOTH»	Both heat and air conditioning
«MRF_ABB_HVAC_HEAT»	Heat only
«MRF_ABB_HVAC_FREEZE»	Freeze protection only
«MRF_ABB_HVAC_VENT»	Ventilation only
D. Other	
	«MRF_ABB_OTHER»
«MRF_LAT_QTY»	Latrine
«MRF_LAT_AV»	Aerated Vault Latrine Standard Size: 330 SQ FT, 26’ x 12’-8”
«MRF_LAT_WLSEP»	Wet Latrine – Septic Field Standard Size: 550 SQ FT, 22’ x 25’
«MRF_LAT_WLSEW»	Wet Latrine – Sewage System Standard Size: 550 SQ FT
«MRF_LAT_OTHER»	Other: «MRF_LAT_SPECIFY»
«MRF_LAT_PORT»	Port-A-John Slab «MRF_LAT_PORT_SIZE»
A. Construction	
«MRF_LAT_CONS_D	D/B Contractors Discretion

SAMPLE

Range Operations and Control Area (ROCA)	
ISC»	
«MRF_LAT_CONS_CMU»	Concrete Masonry Unit (CMU)
«MRF_LAT_CONS_METAL»	Metal
«MRF_LAT_CONS_OTHER»	Other: «MRF_LAT_CONS_SPECIFY»
B. Building Infrastructure and Features	
«MRF_LAT_BI_EL»	Electrical Service
«MRF_LAT_BI_DN»	Day and night operations lighting
«MRF_LAT_BI_LP»	Lightning protection
«MRF_LAT_BI_WS»	Water Supply: Linear feet to source: «MRF_LAT_BI_LF2SRC»
«MRF_LAT_BI_WSW»	Water Supply - Well
«MRF_LAT_BI_SEW»	Sewage Hookup: Linear feet to tie in: «MRF_LAT_BI_LF2TI»
«MRF_LAT_BI_FE»	Fire Extinguisher Cabinets or Brackets
«MRF_LAT_BI_FD»	Fire Detection & Alarm (connected to Installation Emergency Services)
C. HVAC: Power Source: «MRF_LAT_HVAC_POWER»	

SAMPLE

Range Operations and Control Area (ROCA)	
«MRF_LAT_HVAC_BOTH»	Both heat and air conditioning
«MRF_LAT_HVAC_HEAT»	Heat only
«MRF_LAT_HVAC_FREEZE»	Freeze protection only
«MRF_LAT_HVAC_VENT»	Ventilation only
D. Other	
	«MRF_LAT_OTHER»
«MRF_BE_QTY»	Bleacher Enclosure Standard Size: 726 SQ FT, 33’ x 22’
A. Construction	
«MRF_BE_CONS_DISC»	D/B Contractors Discretion
«MRF_BE_CONS_CMU»	Concrete Masonry Unit (CMU)
«MRF_BE_CONS_METAL»	Metal
«MRF_BE_CONS_OTHER»	Other: «MRF_BE_CONS_SPECIFY»
B. Building Infrastructure and Features	
«MRF_BE_BI_	Electrical Service

SAMPLE

Range Operations and Control Area (ROCA)	
EL»	
«MRF_BE_BI_DN»	Day and night operations lighting
«MRF_BE_BI_LP»	Lightning protection
C. Other	
	«MRF_BE_OTHER»
«MRF_NSTD_QTY»	Non-Standard Building: «MRF_NSTD_NAME» Size: «MRF_NSTD_SIZE»
A. Construction	
«MRF_NSTD_CONS_DISC»	D/B Contractors Discretion
«MRF_NSTD_CONS_CMU»	Concrete Masonry Unit (CMU)
«MRF_NSTD_CONS_METAL»	Metal
«MRF_NSTD_CONS_OTHER»	Other: «MRF_NSTD_CONS_SPECIFY»
B. Building Infrastructure and Features	
«MRF_NSTD_BI_EL»	Electrical Service
«MRF_NSTD_BI_DN»	Day and night operations lighting
«MRF_NSTD_BI_LP»	Lightning protection

SAMPLE

Range Operations and Control Area (ROCA)	
«MRF_NSTD_BI_PA»	Public Address (PA) System
«MRF_NSTD_BI_INET»	Data Service - Internet
«MRF_NSTD_BI_TEL»	Telephone service: «MRF_NSTD_BI_COPFIB»
«MRF_NSTD_BI_WS»	Water Supply: Linear feet to source: «MRF_NSTD_BI_LF2SRC»
«MRF_NSTD_BI_WSW»	Water Supply - Well
«MRF_NSTD_BI_SEW»	Sewage Hookup: Linear feet to tie in: «MRF_NSTD_BI_LF2TI»
«MRF_NSTD_BI_FE»	Fire Extinguisher Cabinets or Brackets
«MRF_NSTD_BI_FD»	Fire Detection & Alarm (connected to Installation Emergency Services)
C. HVAC: Power Source: «MRF_NSTD_HVAC_POWER»	
«MRF_NSTD_HVAC_BOTH»	Both heat and air conditioning
«MRF_NSTD_HVAC_HEAT»	Heat only
«MRF_NSTD_HVAC_FREEZ	Freeze protection only

SAMPLE

Range Operations and Control Area (ROCA)	
E»	
«MRF_ NSTD_ HVAC_ VENT»	Ventilation only
D. Other	
	«MRF_NSTD_OTHER»

SAMPLE